



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,258	03/27/2000	Gary L. Gastineau	11657-003001	3646

26161 7590 10/04/2003

FISH & RICHARDSON PC  
225 FRANKLIN ST  
BOSTON, MA 02110

EXAMINER

CHARLES, DEBRA F

ART UNIT PAPER NUMBER

3628

DATE MAILED: 10/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/536,258

Applicant(s)

GASTINEAU ET AL.

Examiner

Debra F. Charles

Art Unit

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-4, 6, 7, and 20 are rejected under 35 U.S.C. 101 because the bodies of the rejected claims do not recite technology, i.e. computer implementation or any other technology. *In re Toma*, 197 USPQ 852 (CCPA 1978). *Ex parte Bowman* 61 USPQ2D 1669.

For a claim to be statutory under 35 USC 101 the following two conditions must be met:

- 1) In the claim, the practical application of an algorithm or idea results in a useful, concrete, tangible result,

AND

- 2) The claim provides a limitation in the technological arts that enables a useful, concrete, tangible result.

As to the technology requirement, note MPEP Section IV 2(b). Also note In re Waldbaum, 173USPQ 430 (CCPA 1972) which teaches "useful arts" is synonymous with "technological arts". In Musgrave, 167USPQ 280 (CCPA 1970), In re Johnston, 183USPQ 172 (CCPA 1974), and In re Toma, 197USPQ 852 (CCPA 1978), all teach a technological requirement.

In State Street, "in the technological arts" was never an issue. The invention in the body of the claim must recite technology. If the invention in the body of the claim is not tied to technological art, environment, or machine, the claim is not statutory. Ex parte Bowman 61USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001) (Unpublished).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3628

3. Claims 1-4,6-7,8-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiron et al. (U.S. PAT. 5806048A) and Pilipovic (U.S. PAT. 6456982B1).

Re claims 1 and 8: Kiron et al. disclose a method of hedging investment risk in actively managed exchange traded funds(col. 1, lines 40-55 and col. 2, lines 1-20, col. 3, lines 1-10), comprises:

selecting a portfolio of financial instruments with similar behavior (col. 3, lines 1-10, col. 4, lines 5-35).

Kiron et al. disclose(s) the claimed invention except extracting factor information from the portfolio of the actively managed exchange traded fund; determining factors that affect the value of the exchange traded fund; and determined factors to produce a hedging portfolio that tracks the price of the exchange traded fund. However, in col. 7, lines 20-30, col. 8, lines 10-40 thereof, Pilipovic disclose(s) hedging and driver factors that determine price. It would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. based on the teachings of Pilipovic. The motivation to combine these references is Pilipovic's econometric model extracts relevant econometric parameters that influence the price of the hedging strategy.

Re claims 2 and 9: Kiron et al. disclose wherein the portfolio tracks the price of the exchange traded fund(col. 3, lines 1-15).

Art Unit: 3628

Re claims 3 and 10: Kiron et al. disclose producing a portfolio from the portfolio of financial instruments in the exchange traded fund(col. 7, lines 1-15).

Kiron et al. disclose(s) the claimed invention except to hedge a position taken. However, in col. 2, lines 50-67, col. 21, lines 10-55 thereof, Pilipovic disclose(s) hedging a position. It would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. based on the teachings of Pilipovic. The motivation to combine these references is Pilipovic explicitly discusses hedging and Kiron et al. discusses using linked derivatives valuation techniques. Derivatives do function as hedges, however, Pilipovic provides explicit detail on hedging strategies.

Re claims 4 and 11: Kiron et al. disclose(s) the claimed invention except applying factor analysis to the portfolio of the exchange traded fund to provide the factors. However, in col. 4, lines 20-55, col. 8, lines 20-40 thereof, Pilipovic disclose(s) factor analysis used to establish pricing. It would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. based on the teachings of Pilipovic. The motivation to combine these references is Pilipovic's factor analysis defines driving factors that define the price used to make buy, sell and hold.

Re claims 6 and 13: Kiron et al. disclose(s) the claimed invention except the factors that are examined by factor analysis include economic activity, inflation rates or other factors that are related to measures of economic activity. However, in col. 4, lines 20-40, col. 7, lines 15-45 thereof, Pilipovic disclose(s) multi-factor model for simulating, pricing and hedging financial products. It would be obvious

Art Unit: 3628

to one of ordinary skill in the art to modify the invention of Kiron et al. based on the teachings of Pilipovic. The motivation to combine these references is the factors that are a part of Pilipovic's multifactor model present economic activity influenced by inflation rates. Pricing is influenced by inflation rates.

Re claims 7 and 14: Kiron et al. disclose(s) constructing a factor portfolio based upon weightings and selections of securities from a given group of securities(col. 3, lines 1-10, 45-63, col. 4, lines 5-10, col. 6, lines 1-10).

4. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiron et al. and Pilipovic as applied to claims 3 and 11 above, and further in view of Meyers et al. (U.S. PAT. 5937159A).

Re claims 5 and 12: Kiron et al. and Pilipovic disclose(s) the claimed invention except applying occurs in a trusted computer system. However, in Abstract, cols. 1-26 thereof, Meyers et al. disclose(s) a trusted secure computer system. It would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. and Pilipovic based on the teachings of Meyers et al. The motivation to combine these references is both Kiron et al. and Pilipovic easily fit onto trusted secure computer systems which are widely used for financial applications.

5. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiron et al., Pilipovic and Meyers et al.

Art Unit: 3628

Re claims 15-18: Kiron et al. disclose a computer system for determining a basket of securities for hedging investment risk in actively managed exchange traded funds(col. 1, lines 40-55 and col. 2, lines 1-20, col. 3, lines 1-10), comprises:

a computer storage medium storing a computer program product for determining the basket of instruments for hedging investment risk(col. 4, lines 35-55), comprising instructions for causing the computer to:

select a portfolio of financial instruments with similar behavior(col. 3, lines 1-10, col. 4, lines 5-35);

produce a hedging portfolio from the portfolio of in the exchange traded fund(col. 7, lines 1-15).

Re claim 15-18: Kiron et al. disclose(s) the claimed invention except extract factor information from a portfolio of an actively managed exchange traded fund; determine factors that affect the price of the exchange traded fund; and determined factors to produce a hedging portfolio that tracks the price of the exchange traded fund, stocks to hedge a position taken, apply factor analysis to the portfolio of the exchange traded fund to provide the factors, system examines factors including economic activity, inflation rates or other factors that are related to measures of economic activity. However, in col. 2, lines 50-67, col. 4, lines 20-55, col. 7, lines 20-30, col. 8, lines 20-40, col. 21, lines 10-55, thereof, Pilipovic disclose(s) hedging and driver factors that determine price, factor analysis used to establish pricing, hedging a position. It



Art Unit: 3628

would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. based on the teachings of Pilipovic. The motivation to combine these references is Pilipovic's econometric model extracts relevant econometric parameters that influence the price of the hedging strategy.

Re claim 15: Kiron et al. and Pilipovic disclose(s) the claimed invention except applying occurs in a trusted computer system. However, in Abstract, cols. 1-26 thereof, Meyers et al. disclose(s) a trusted secure computer system. It would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. and Pilipovic based on the teachings of Meyers et al. The motivation to combine these references is both Kiron et al. and Pilipovic easily fit onto trusted secure computer systems which are widely used for financial applications.

Re claim 19: Kiron et al. disclose(s) construct a factor portfolio based upon weightings and selections from a given group of instruments(col. 3, lines 1-10, 45-63, col. 4, lines 5-10, col. 6, lines 1-10).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiron et al. and Pilipovic.

Re claim 20: Kiron et al. disclose(s) a method of calculating a Net Asset Valuation proxy(col. 2, line 55-col. 3, line 15, new linked derivative security functions as proxy) comprises:

Art Unit: 3628

Kiron et al. disclose(s) the claimed invention except producing a hedging portfolio to track by extracting factor information from a portfolio of the fund and determining factors that affect the price of the fund with respect to the determined factors to produce the hedging portfolio. However, in col. 2, lines 50-67, col. 4, lines 20-55, col. 7, lines 20-30, col. 8, lines 20-40, col. 21, lines 10-55, thereof, Pilipovic disclose(s) hedging and driver factors that determine price, factor analysis used to establish pricing, hedging a position. It would be obvious to one of ordinary skill in the art to modify the invention of Kiron et al. based on the teachings of Pilipovic. The motivation to combine these references is Pilipovic's econometric model extracts relevant econometric parameters that influence the price of the hedging strategy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra F. Charles whose telephone number is (703) 305-4718. The examiner can normally be reached on 9-5 Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (703) 308-0505. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 3628


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5771.

Debra F. Charles

Examiner

Art Unit 3628

dfc

  
HYUNG SOUGH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600